

16.6560

S/044/62/000/005/043/072  
C111/C444

AUTHORS: Nesterenko, A. I.; Koryepov, V. G.

TITLE: On the numerical solution of integral equations by use of  
elektronic digital machines

PERIODICAL: Referativnyy zhurnal, Matematika, no. 5, 1962, 39,  
abstract 5V190. ("Visnyk Kiyvs'k. un-tu," 1959, no. 2,  
ser. astron., matem. ta mekhan., no. I, 111-123)

TEXT: The authors describe the basic theorems of the iteration  
method of G. N. Polozhiy (RZhMat 1958, 8913) for the solution of  
Fredholm integral equations, and they construct computing formulas for  
Fredholm equations of second kind with a degenerated symmetrical kernel  
and with an arbitrary real kernel. The obtained computing formulas are  
put into a program for the electronic digital machine "Strela". Two  
numerical examples are considered. A program is added.

[Abstractor's note: Complete translation.]

Card 1/1

<sup>Y</sup>  
KORNEV, S. F.

Heating; textbook Moskva, Gos. izd-vo lit-ry po stroitel'stvu i arkhitekture, 1953.  
495 p. (54-35070)

Th7641.K58

KORYKHALOVA, YE. V.

Milking

How I obtained a high milk yield. Krest'ianka 31 no. 8, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 195~~8~~, Uncl.

2

ACC NR: AP7004569

SOURCE CODE: UR/0056/65/049/005/1424/1430

AUTHOR: Suzdalev, I. P.; Gofdanskiy, V. I. Makarov, Ye. F.; Plachinda, A. S.;Korytko, L. A.ORG: Institute of Chemical Physics, AN SSSR (Institut khimicheskoy fiziki  
AN SSSR)TITLE: Investigation of the dynamics of the motion of tin atoms at the  
surface of silica gel by means of the Mossbauer effectSOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki v. 49, no. 3,  
1965, 1424-1430TOPIC TAGS: Mossbauer effect, silica gel, sorption, tin, chemisorptionABSTRACT: The authors used the nuclear gamma resonance (Mossbauer effect) method to investigate the dynamics of the motion of tin atoms sorbed on the surface of silica gel. A special cryostat was constructed for temperature measurements. All measurements were made on a nuclear gamma resonance spectrometer with source in the form of  $\text{Sn}^{119}\text{O}_2$ . Analysis of the experimental results indicated that the tin atoms at the surface exist in two states -- the tetravalent and the bivalent. Investigation of the temperature dependence of the Mossbauer-effect probability indicated that the tetravalent tin is fixed on the surface through physical sorption; and the bivalent tin, through chemisorption. Considerable asymmetry of the doublet components was found in the spectrum of

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the tin sorbed on the surface in the form of  $\text{SnO}$  (surface chemisorption). It was found that the electric-field gradient at the  $\text{Sn}^{119}$  nucleus in  $\text{SnO}$  increases with an increase in temperature and significantly exceeds its value for the crystal state of  $\text{SnO}$ . The following were evaluated on the basis of the experimental findings: the absolute values of the mean square displacements of the  $\text{SnO}_2 \cdot n\text{H}_2\text{O}$  molecule on the surface and of tin atoms within the molecule as a function of temperature; the zero-vibration energy of the tin atoms and molecules; the energy at which the bond between molecule and adsorption center on the globule surface disappears; the absolute values of the mean square displacements of tin atoms in  $\text{SnO}$  molecules in a direction perpendicular or parallel to the surface, as well as their temperature dependence. The authors point out that by extrapolating the absolute values of the mean square displacements as a function of temperature it is also possible to obtain the displacement values at absolute zero temperature, and this in turn makes it possible to evaluate the corresponding vibration frequencies. The value of a temperature dependence such as the one obtained by the authors for physical sorption makes it possible in principle to find the form of the potential well for sorbed atoms or molecules. These questions will be considered by the authors in subsequent publications. The authors express their gratitude to I. Ye. Neymark, V. M. Chertov, and I. Ye. Garzanov for their interest and aid in the experimental work, and to Yu. M. Kagan for his discussion of the results. (JPRS;

Card 2/2 34,657 SUB CODE: 07,20 / SUBM DATE: 08 Jun 65 / ORIG REF: 011 / OTH REF: 4

KORYKO, Semen Kirillovich; SMORODOV, P.V., red.; PETROVA, O.B.,  
tekh.n.red.

[In the North Atlantic; work practices of crew members of  
medium fishing trawler No.4461] V prostorakh Severnoi  
Atlantiki; opyt raboty ekipazha SRT no.4461. Petrozavodsk,  
Gos.izd-vo Karel'skoi ASSR, 1959. 24 p. (MIRA 12:10)  
(Atlantic Ocean--Trawls and trawling)

KORYLINSKI, W., doc. mgr inz.; BACH, St., mgr inz.; KLUSKA, St., mgr inz.;  
SILMBACH, E., mgr inz.

Laboratory testing of electrodehydrates. Nafta Pol 18 no.9:248-250  
S '62.

1. Akademia Gorniczo-Hutnicza, Krakow.

KISLOV, V.V.; ZAITOV, I.R.; LOBANOV, A.N., doktor tekhn. nauk,  
retsenzent; LEVCHUK, G.P., kand. tekhn. nauk, dots.,  
retsenzent; BORDYUKOV, M.P., kand. tekhn. nauk, dots.  
retsenzent; OVSYANNIKOV, R.I., kand. tekhn. nauk, dots.,  
retsenzent; ~~KORYLOV, V.N.~~, kand. tekhn. nauk, dots.,  
retsenzent; BIR, N.Ya., doktor tekhn. nauk, prof.,  
red.

[Practical work in photogrammetry] Praktikum po foto-  
grammetrii. Moskva, Nedra, 1965. 187 p.

(MIRA 18:6)



KORYN, E.

The installation of warm water in villages. p. 13.

(Budownictwo Wiejskie. Vol. 9, No. 7, July 1957. Warszawa, Poland)

SC: Monthly List of East European Accessions (EEAL) Lc. Vol. 6, No. 10, October 1957. Uncl.

KORYN, E.

Central heating in one-family houses.

p. 14, (Budowietwo Wekskie, Vol. 9, no. 10, Oct. 1957, Warszawa, Poland )

Monthly Index of East European Accessions (FEAI) LC. Vol. 7, no. 2,  
February 1958

KORYNTA, Josef, dr. (Czechoslovakia)

Here is the Z + H expedition. Pt. 68. Auto motor 17 no.2:  
7 21 Ja '64.

KORYNTA, Josef, dr. (Csehszlovakia)

Here is the Z+H expedition. Pt. 65. Auto motor 16 no.18:  
8 21 S '63.

KORYNTA, Josef, dr.

Here is the Z+H expedition. Pt.67. Auto motor 16 no.22:  
7 21 N '63.

KORYNTA. Josef, dr. (Csehszlovakia)

Here is the Z+H expedition, Pt.71. Auto motor 17 no.17:7 6 S '64.

KORYNTA, Josef, MUDr.

Simplified anesthesia with dibarcol. Rozhl. chir. 36 no.2:116-118  
Feb 57.

1. Chirurgické oddelení ONZ v Litoměřicích, primář MUDr R. Šelina.  
(MUSCLE RELAXANTS,  
diathazine premedication in anesth. (Cz))  
(ANESTHESIA,  
diathazine premedication (Cz))

KORYNTA, Josef

The use of fluothane in orthopedic surgery. Acta chir.orthop.  
traum.cech. 28 no.3:238-240 Je '61.

1. I.klinika pro ortopedickou a detskou chirurgii v Praze, prednosta  
prof. dr. M. Jaros.

(ORTHOPEDICS anesth. & analgesia)  
(ANESTHETICS)

purpose computers and I/O systems are described: 1) The small-size "Mir" computer developed at the Institute of Cybernetics AN SSSR is intended for solution of scientific and engineering problems. No special programming capability is required to operate this machine. The input unit (an electric typewriter) accepts instructions

Card 1/6 APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R00082502000



ACC NR: AP6032088

I/O	Input speed	Output speed
Punched card	250 lines/min	100 cards/min
Perforated tape	800 characters/sec	20 lines/sec
Typewriter	7 ch/sec	7 ch./sec
Alphanumeric printing		
Mechanism		400 lines/min
BPM-20 printed		20 words/sec

in formula format. The output is a wide carriage typewriter whose printing speed is 5—7 characters/sec. The computer arithmetic unit is based on 5 digit described number representation; its speed is 200—300 op./sec. The computer has a 12-bit 4096 word core memory. Its power consumption is 1 kw. 2) The digital x-y plotter designed at the Riga Central Design and Planning Bureau of Mechanics and Automation is capable of plotting 1100 points/hr on the board 1.1 m long and 0.8 m wide (see Fig. 1). The plotter accepts input from a keyboard (separate unit), punched cards, perforated tape, or directly from a computer. 3) The "Siluet" system developed at the Independent Design and Planning Bureau in Vil'nus. The system reads graphically

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ACC NR: AP6032088

represented data, converts it into the 3 digit decimal CCIT-2 telegraph code, and issues it on perforated tape (see Fig. 2). Four ordinates may be processed per second. 4) The Vil'nus Bureau also features the BLP-1 system which reacts data from 5, 6, or 7 unit paper tape and converts into corresponding information on 80-column punched cards (see Fig. 3). The system has an error checking feature. 5) The new electro-

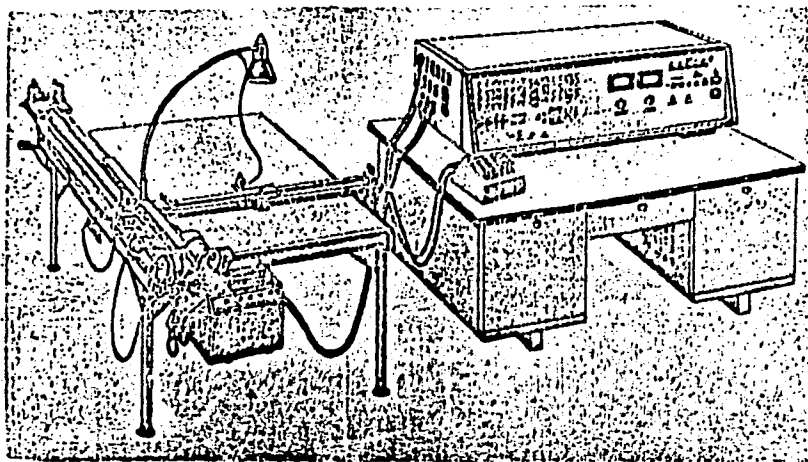


Fig. 1. Automatic digital x-y plotter

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ACC NR: AP6032088

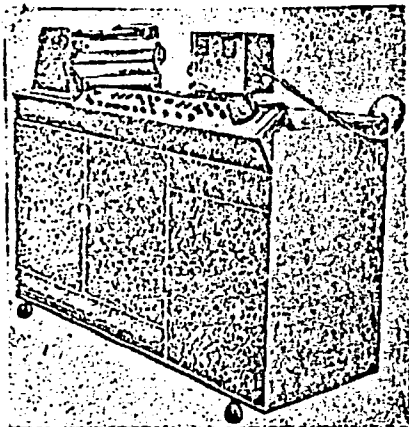


Fig. 2. "Siluet" - automatic graph reader

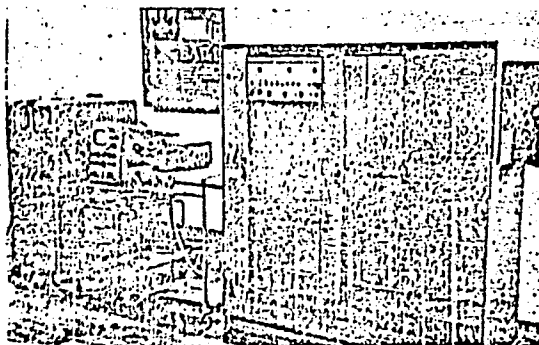


Fig. 3. BLP-1 tape reader/card punch system

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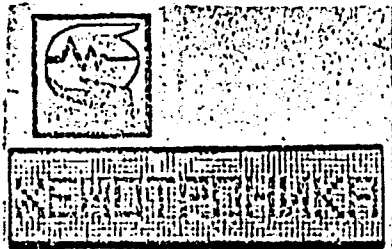


Fig. 4. Electrochemical indicator

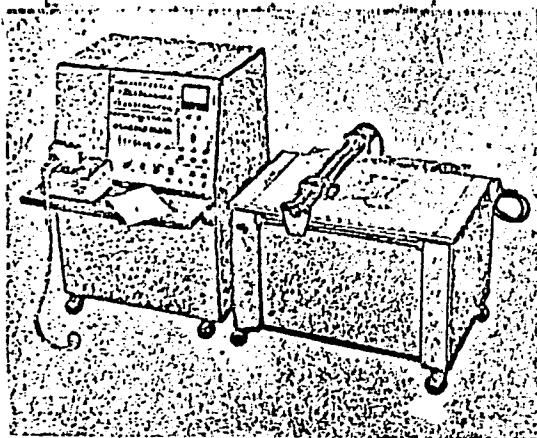


Fig. 5. Programmed drafting system

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KHERSONSKIY, I.; KORYSHEV, V.

Modernization of the SEK-1 tower crane. Prom.stroi. i inzh.soor.  
3 no.2:56 Mr-Ap '61. (MIRA 15:3)  
(Cranes, derricks, etc.)

KORYSTENSKAYA, G.P. (Kiyev)

Preparation for surgery and use of biological hemostatics in  
pediatric tonsil surgery. Vrach.delo supplement '57:51-52

(MIRA 11:3)

1. Ukrainskiy nauchno-issledovatel'skiy institut okhrany  
materinstva i detstva (nauchnye rukovoditeli: prof. L.A.Zaritskiy  
i kand.biol.nauk Z.Ye.Babich)  
(TONSILS--SURGERY)

*Cand*  
KORYSTENSKAYA, G. P.: Master Med Sci (diss) -- "The prophylaxis of hemorrhage  
in operations on the tonsils of children". Odessa, 1958. 18 pp (Odessa State  
Med Inst im N. I. Pirogov), 200 copies (KL, No 2, 1959, 125)

KORYSTENSKAYA, G.P.

Preventing hemorrhage in tonsil surgery in children. Vest.oto.  
-rin. 20 no.3:104-105 My-Je '58 (MIRA 11:6)

1. Iz Ukrainskogo nauchno-issledovatel'skogo instituta okhrany  
materinstva i detstva, Kiev.  
(TONSILS--SURGERY)



KURILIN, I.A., dotsent; TSIPENYUK, Ye.Ye., fizioterapevt; KORZSTENSKAYA, G.P.  
kand.med.nauk

Epicutaneous anesthesia using A.P. Parfenov's solution by means  
of electrophoresis in tonsillectomy. Vrach. delo no. 3:97-99  
Mr '61. (MIRA 14:4)

1. Otdeleniye bolezney ukha, gorla i nosa (zav. - dotsent I.A.  
Kurilin) Kiyevskoy gorodskoy detskoy spetsializirovannoy  
klinicheskoy bol'nitsy.

(LOCAL ANESTHESIA) (ELECTROPHORESIS)  
(TONSILS—SURGERY)

VINNIK, Nikolay Iosifovich; KORYSTIN, Lev Nikolayevich;  
PETROPOL'SKAYA, O.A., red.

[Compressed wood dimensions of the Borovichi Forest  
Industries; methodological handbook on their utilization]  
Pressovannye zagotovki Borovichskogo lespromkhoza; metodicheskoe rukovodstvo po ispol'zovaniyu. Voronezh, Tsentral'no-Chernozemnoe knizhnoe izd-vo, 1964. 16 p. (MIRA 18:6)

KORYSTIN, P.V., MOISEYEV, A.S., VOL'F, A.S., NOVIK, I.V.

"Purification of Water in a Portable Ionite Filter," by I. V. Vol'f, A. S. Moiseyev, P. V. Korystin, and I. V. Novik, Vodosnabzheniye i Sanitarnaya Tekhnika, No 12, Dec 56, pp 8-10

The article gives a brief history of the development of portable ionite filters for purification (elimination of salts and impurities) from water to render it potable, conducted by the All-Union Scientific Research Institute for Hydraulic Engineering and Sanitary Engineering Works, from 1950 to present.

The article also describes in detail the construction and characteristics of a portable ionite water filter developed in 1955 by the above institute in conjunction with the Novosibirsk Scientific Research Sanitary Institute, the filter being designed for the use of small groups under field conditions in areas of high mineral content.

The purified water output of the filter on a single charge of ionites is 250 liters when the salt content of the original water is less than 3 g/l. When the original salt concentration is 5-6 g/l, the fresh water output is reduced to 100-120 l.

The filtering unit itself is cylindrical in shape, the dimensions being one meter x 200 mm.

SUM. I287

VOL'F, I.V.; KOZHEVNIKOV, A.V.; KORYSTIN, P.V.; YAROSH, P.P.

Simultaneous softening and deoxidation of water with a test filter  
under industrial conditions. Khim. i tekhn. gor. slan. i prod.  
ikh perer. no.9:262-268 '60. (MIRA 15:6)  
(Feed water purification)

KORYSTIN, S.N.

Sweet-fruit rowan tree. Biul. Glav. bot. sada no.50:97-99 '63.

(MIRA 17:1)

1. L'vovskiy sel'skokhozyaystvennyy institut.

KORYSTKINA, V.Ye.; MOISEYEVA, Ye.V.; YAROVIKOVA, T.F.

Method of continuous processing of crude turpentine. Gidroliz. 1  
lesokhim.prom. 17 no.8:29-30 '64. (MIRA 18:1)

1. Verkhoturkskiy lesokhimicheskiy zavod.

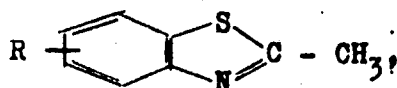
S/079/62/032/011/006/012  
D204/D307

AUTHORS: Ushenko, I.K., Rodova, F.Z., and Korystov, V.I.

TITLE: Cyanine dyes containing unsaturated substituents.  
XI. Thiocarbocyanines containing dimethyl-, diphenyl-,  
and carboxyvinyl radicals in the benzothiazole ring

PERIODICAL: Zhurnal obshchey khimii, v. 32, no. 11, 1962;  
3650 - 3656

TEXT: Compounds

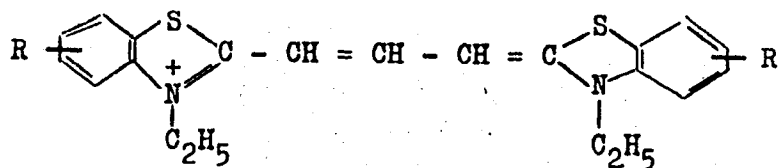


where R is I:  $\text{HOOC.CH}=\text{CH}$  in position 6; II:  $\text{HOOC.CH}=\text{CH}$  in position 5; III:  $\text{HOOC.CHCl.CH}_2$ ; IV:  $\text{CH}_3\text{OOC.CH}=\text{CH}$ ; V:  $(\text{CH}_3)_2\text{C}=\text{CH}$ ; VI:  $(\text{C}_6\text{H}_5)_2\text{C}=\text{CH}$ ; VII:  $\text{C}_6\text{H}_5\text{CH}=\text{C C}_6\text{H}_5$ , (substituents in III-VII in position 6), were prepared for the first time, in 5-70 % yields, I and II were synthesized by heating the corresponding 2-methyl-(5

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Cyanine dyes containing unsaturated ... S/079/62/032/011/006/012  
D204/D307

or 6)- $\beta$ -cyanovinylbenzthiazoles with conc. HCl, for 4 hrs. at 100°C. IV was prepared by esterifying I in the usual way. Compound III resulted (together with I) from the heating of 2-methyl-6-( $\beta$ -chloro- $\beta$ -cyanoethyl)-benzothiazole with conc. HCl. To prepare V, 2-methyl-6-aminobenzothiazole was diazotized and reacted with  $\beta$ , $\beta$ -dimethylacrylic acid/acetone/Na acetate/CuCl<sub>2</sub>, at 20°C for 4 hrs. VI, VII and VIII (2-methyl-6-[ $\beta$ -benzothiazolyl-(2)-vinyl]-benzothiazole) were prepared in a similar manner, using  $\beta$ , $\beta$ -diphenylacrylic,  $\alpha$ -phenylcinnamic and  $\beta$ -(2-benzothiazolyl)-acrylic acids. Uv spectra of these compounds showed conjugation of the heterocyclic rings and the unsaturated substituents. New compounds



were also prepared, where R is IX: HOOC.CH = CH in positions 5; X: HOOC.CH = CH in positions 6; XI: CH<sub>3</sub>COOCH = CH; XII: HOOC.CHCl.CH<sub>2</sub>

Card 2/3



CA

The polarographic determination of the stability constants of the complexes formed by some heavy metals with Schwarsbach's complexones. J. Koryta and I. Kösler (Charles Univ., Prague). *Collection Czechoslov. Chem. Commun.* 15, 241-50 (1950) (in English).—The rates of formation and decomposition of the complexes formed by nitrotriacetic acid,  $N(CH_2COOH)_3(H_4A)$ , with Cd, Pb, and Zn are of such an intermediate character as to render impossible the calculation of their stability constants ( $K$ ) by the usual polarographic technique with a dropping Hg electrode. The waves obtained at such an electrode have a partially kinetic character. By means of a modified streaming Hg electrode and conventional current-potential recording, the kinetic contribution to the current can be eliminated and the  $K$  calculated under various conditions of ionic strength ( $\mu$ ) and pH. The logs of the values of  $K$  for the reaction,  $M^{2+} + 3- = M3-$ , are (1) for  $Cd^{2+}$ : 9.16 at  $\mu 0.1$ , 8.85 at 0.2, and 8.61 at 0.3; (2) for  $Pb^{2+}$ : 10.68 at  $\mu 0.2$ ; and (3) for  $Zn^{2+}$ : 10.35 at  $\mu 0.2$ . Only values of  $K$  up to  $10^{11}$  can be determined by the technique. Consequently, the values of  $K$  for the more stable complexes of Cd, Zn, and Pb with ethylenediaminetetraacetic acid could not be determined. P. J. Elving

KORYTA, J.  
 1951

24(2.4)

PHASE I BOOK EXPLOITATION CZECH/2433

International Polarographic Congress. 1st, Prague, 1951

Shoruck I. Mezinárodní polarografického kongresu. Díl 3. Hlavní referáty přednesené na sjezdu. Proceedings. Vol. 3. Reviews Read at the Congress. Praha, Přírodovědecké vyd.-v. 3 (1952) 774 p. 2,000 copies printed.

Resp. Ed.: Jiří Koryta, Doctor; Chief Ed. of Publishing House: Milan Skalník, Doctor; Tech. Ed.: Oldřich Duka.

PURPOSE: The book is intended for chemists, chemical engineers, and physicists.

COVERAGE: The book is a collection of reviews and original papers read at the International Polarographic Congress held in Prague in 1951. Uses of Polarography in organic and inorganic analysis, biochemistry, medicine, and industrial chemistry are discussed. In that section, reviews Read at the Congress, Russian and either German or English translations of each review are presented. In the section, Original Papers Read at the Congress, only those translations in Russian, German, and English which have not been published in Volume I are presented. The following scientists participated in the opening of the Congress: Professor Witor Kuznetsov, Dean of the Faculty of Sciences, Moscow; Doctor Jaromír Dolanský, Minister of Planning; Prof. Dr. Jaroslav Herovský, Chairman of the Congress; and Professor Jaroslav Pukacko, Chairman of the Center for Scientific Research and Technical Development. References follow each paper.

Scratch Study of Catalytic Reactions at a Dropping Mercury Electrode	667
Koryta, J. Decomposition Rate of the Complex of Nitrofluoracetic Acid With Cadmium	672
Smutek, M. Slow Electrode Reactions [Russian Translation] [English Translation]	677 683 687
Manus, Y. Polarographic Study of the Recombination of Phenylglyoxylic Acid	691
Koutceky, J. Linear Systems of Electrode Reactions in Which a Chemical Reaction in Solution Takes Place	699
Pliva, J. Contribution to the Theory of Diffusion Currents [Russian Translation] [English Translation]	703 712 717

Card 12/14

*Electrochemistry*

CP

Diffusion currents on a streaming electrode. J. H. Koryta  
(Central Polarographic Inst., Prague, Czech.) *Chem  
Listy* 60, 204-7 (1962). An equation for the diffusion cur-  
rent and polarographic wave on a streaming electrode was  
derived by a simplified treatment, and the results were  
checked experimentally. Limit diffusion currents and half-  
wave potentials, resp., on the streaming electrode were detd.  
for  $Ti^{3+}$  ( $1.77 \times 10^{-4}$ ,  $-0.51$  v.),  $Pb$  ( $0.82 \times 10^{-4}$ ,  $-0.44$  v.),  
Cd ( $0.634 \times 10^{-4}$ ,  $-0.63$  v.), and Zn ( $0.605 \times 10^{-4}$ ,  $-1.16$   
v.). M. Hudlický

211

Techn. Anal. 4

Polarography of barbituric acid derivatives. I. Barbituric acid. Jit Koryta and Petr Zuman (Central Polarographic Inst., Prague, Czech.). *Chem. Listy* 46, 380 (1952). - Barbituric acid (I) gives an anodic wave at pH 3.5-13. Its half-wave potential toward the satd. calomel electrode is 0.23 v. at pH 3.5 and -0.08 v. at pH 9.4. The height of the wave is proportional to the concn. at low concns. and const. at higher concns. In the beginning the current is limited by the diffusion of I to the electrode surface. The compd. of I with the electrode Hg is adsorbed by the surface of the electrode and changes its capacity. When the surface of the electrode is occupied, at higher concns. and prolonged falling of the drop, the wave has an adsorption character. At pH 3.5-6.5, a more pos. wave is formed which is difficult to read. The range over which the wave is proportional to the concn. can be extended by the use of a streaming electrode. M. Hudlický

KORYTA, I.

Polarographic proof of the reversibility of the oxidation reduction system oxygen--hydrogen peroxide [in German with summary in Russian]. Sbor. Chekh. khim. rab. 18 no.1:21-27 F '53. (MLRA 7:6)

1. Tsentral'nyy polyarograficheskiy institut, Praga.  
(Systems (Chemistry)) (Oxidation, Electrolytic)  
(Polarograph and polarography)

KORYTA, J.; ZUMAN, P.

Polarography of barbituric acid derivatives. Part 1. Barbituric acid  
[in German with summary in Russian]. Sbor.Ohek.khim. rab. 18 no.2:  
197-205 Ap '53. (MLRA 7:6)

1. Tsentral'nyy polyarograficheskiy institut, Praga.  
(Barbituric acid) (Polarograph and polarography)

KORYTA, J.

Effect of eosine dyes on the reversible oxidation reduction on mercury drop electrodes [in German with summary in Russian]. Sbor. Chekh. khim. rab. 18 no.2:206-213 Ap '53, (MLRA 7:6)

1. Tsentral'nyy polyarograficheskiy institut, Praga.  
(Electrodes, Dropping mercury) (Eosins) (Reduction, Electrolytic)

KIRUTA J.

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... .. as  $E = 7.0 \text{ kcal}$ . O.H.M.



POLAROGRAPHY OF BARBITURIC ACID DERIVATIVES. II. Barbi-  
 tal. P. Zeman, J. Koryta, and P. Kalous (Central Inst.  
 Polarography, Prague). *Collection Czech. Chem. Commun.*  
 18, 550-55 (1953) (German); *Chem. Listy* 47, 375-56  
 (1953); cf. *C.A.* 47, 9816c.—Barbital in a borate buffer of  
 pH 9.3 produces an anodic wave on the polarogram. Up to  
 a certain limiting value the height of this wave is proportional  
 to the concn. of barbital; above this, the wave maintains a  
 const. height. It then has the character of an adsorption  
 current, whereas at low concns. the wave height is diffusion  
 controlled as indicated by its temp. coeff., by oscillographic  
 current-time curves, and by expts. with regulated drop time  
 or Hg pressure. The range of concn. in which the current  
 is diffusion controlled depends on the characteristics of the  
 capillary and may be extended by the use of a streaming Hg  
 electrode. The anodic wave is probably produced by the  
 reaction of 2 mols. of Hg with 3 mols. of barbital to form an  
 insol. or complex compd. which is adsorbed on the surface of  
 the electrode. The variation of its half-wave potential with  
 concn. and with pH is only approx. expressed by the equa-  
 tion  $E_{1/2} = E_0' + (3RT/1F) \ln \{ (2H^+)(K + [H^+]) / [ \text{barbital} ] \}$ , where  $K$  is the dissoc. const. of barbital.  
 O. H. M.

KORYTA, J.

"Polarographic investigation of the kinetics of the oxidation of titanium by hydroxylamine."  
Československá Morfologie, Praha, Vol. 47, No. 1, Jan 1953, p. 26.

SO: Eastern European Accessions List, Vol. 3, No. 11, Nov. 1954, L.C.

KORYTA, J.

" The Effect of Dyes of the Eosin Group on Reversible Redox Reactions at the Dropping Mercury Electrode," p. 340.  
(Chemicke Listy, Vol.47, No.3, Mar. 1953, Praha.)

SO:Monthly List of East European Accessions, Vol.2, No.9, Library of Congress, 1953, Uncl.,  
September, /

KORYTA, Jiri

400

The theories of irreversible electrode processes and their significance for polarography. Jiri Koryta (Czechoslovak Acad. Sci., Prague). Chem. Zvesti 6, 641-60 (1964).—A survey of slow reactions and their applications to the polarographic method is given. The equations for the limiting current wave at the jet electrode for a disk electrode reaction and of the difference between the half-wave potentials of dropping and jet electrodes are derived. The theory of the reduction of  $H_2O_2$ ,  $Ti^{4+}$ , and  $Zn^{2+}$  is discussed. This work is part of a series of papers on the theory of electrode processes.

CH 178 S No. 10.

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depoarizer concn.  $C$  and of the potential  $\alpha$ .  
tation of the const.  $\alpha$  is not quite satisfactory.

The interpre-  
37 references.  
Jan Micko

82

KORYTA, Jiri

"Diffusion and Kinetic Currents at the Streaming Mercury Electrode. In English."  
p. 443 (COLLECTION OF CZECHOSLOVAK CHEMICAL COMMUNICATIONS. SBORNÍK CHEK-  
HOSLOVATSKIKH KHMICHESKIKH RABOT, Vol. 19, No. 3, June 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4  
No. 5, May 1955, Uncl.

*Cent. Polarography Inst.*

KORYTA, I.

KORYTA, I.

Catalyzed electrode reactions in polarography. III. Kinetics of oxidation of triethanolamine complex of bivalent iron with hydroxylamine. n. 66 (Collection of Czechoslovak Chemical Communication. Praha. Vol. 19, no. 4, Aug. 1954)

SO: Monthly List of <sup>East</sup> European Accession (SEAL), IC, Vol. 4, No. 6, June 1955, Uncl.

KORYTA, J.

KORYTA, J. ; TENYOL, J.

Catalyzed electrode reactions in polarography. I. Polarographic determination of chlorates. p. 439. (Collection of Czechoslovak Chemical Communication. Praha. Vol. 19, no. 4, Aug 1954) East  
SO: Monthly List of European Accession (LEAL), IC, Vol. 4, No. 6, June 1955, Uncl.

KORYTA, JIRI

CZECH

Effect of depolarizer regeneration by disproportionation  
on polarographic currents. I. Theoretical. Jaroslav  
Kouturek and Jiri Koryta. Collection Czechoslov. Chem.  
Commun. 19, 815-56 (1954) (in German).—See C.A. 49,  
743d. E. J. C.

Handwritten signature or initials.



KRY74, J.

# CZECH

## 633. Catalysed electrode reactions in polarography.

### II. Polarographic determination of chlorate.

Kocurk and J. Tezval. *J. Chem. Phys.* 1954, 45, 101-102.

In the polarography of the oxalate complex of  $Ti^{3+}$  in the presence of  $ClO_3^-$  ions, the limiting current of  $Ti^{3+}$  increases owing to the catalytic reduction of  $ClO_3^-$ . In a sufficient excess of  $ClO_3^-$ , the limiting catalytic current is proportional to the concn. of  $Ti^{3+}$  and to the square root of the concn. of  $ClO_3^-$ . By means of a theoretical approximation, the concn. ranges in which the limiting current is proportional to the concn. of  $ClO_3^-$  were calculated. For the determination of  $ClO_3^-$  in concn. ranges from 0.001 to 0.015 M, the following electrolyte is recommended: 0.01 M  $Ti^{3+}$ , 0.2 M oxalic acid, 0.4 M  $H_2SO_4$ , 0.01 per cent. gelatin and 0.25 M  $Na_2SO_4$ .

G. GLASER

KORYTA, J.

"Catalysed Electrode Reactions in Polarography. III Kinetics of the Oxidation of the Iron (II)-Triethanolamine Complex by Hydroxylamine.", P. 514, (CHEMICKÉ LISTY, Vol. 48, No. 4, April 1954, Praha, Czech.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 3, Mar 1955, Uncl.

MAN 773 5181

Effect of depolarizer regeneration by disproportionation on polarographic currents. I. Theoretical. Jaroslav Koucky and Jiri Koryta (Polarograf. listy, CSAV, Prague, Czech.). *Chem. Listy* 48, 996-1000 (1954).—The paper of Orlmann and Kern (C.A. 47, 11907c) on the kinetics of disproportionation of U(V), which is the reduction product of U(VI), is discussed. A new solution of this problem is given, and an equation of the polarographic wave is derived. A theory of the general case of a slow reversible disproportionation is given. A function is tabulated for the slow irreversible disproportionation, which gives the ratio of the limiting current to the diffusion current of the depolarizer as a function of the drop time, the disproportionation const., and of the depolarizer concn. This function can be used directly for evaluating the rate const. of the disproportionation of U(V) from polarographic limiting currents. B. Erdos

*Handwritten signature: B. Erdos*

# CZECH

Effect of depolarizer regeneration by disproportionation on polarographic currents. II. Experimental investigation of the di-proportionation of granium(V) ion. Jil Korytn and Jaroslav Koutecký (Vojtěchovský, Prague) Chem. Zvesti 48, 1047-8 (1954); cf. C.A. 49, 7441. The dependences of the limiting current of the reduction of the  $UO_2$  ion in acid solns. on the  $UO_2$ -ion concn.,  $H^+$ -ion concn., and on the drop time were detd. In 0.5M  $ClO_4$ -ion soln., the rate const. of the disproportionation, referred to unit  $H^+$ -ion concn., was detd.:  $k_0 = k/[H^+] = 1.43 \times 10^3$  l./mole<sup>2</sup> sec., in 0.5M  $Cl$ -ion soln. contg. 0.002% gelatin:  $k_0 = 2.5 \times 10^3$  l./mole<sup>2</sup> sec., and in 2M  $Cl$ -ion soln.  $k_0 = 7 \times 10^3$  l./mole<sup>2</sup> sec. The agreement of the exptl. results with the theory (loc. cit.) was best for the 0.5M  $ClO_4$ -ion soln. In 2M  $Cl$ -ion soln., an anomalous behavior was observed. The gelatin retarded the rate of the disproportionation.

E. Erdős

[illegible]

KORYTA, J.

Constitution of inorganic substances and their polarographic behavior.  
p. 459. CHEMIOKE ZVESTI. Bratislava. Vol. 9, no. 7, Sept. 1955.

SOURCE: East European Accessions List (EEAL), LC, Vol. 5, no. 3, March 1956

KORYTA, J.; KOUTECKY, J.

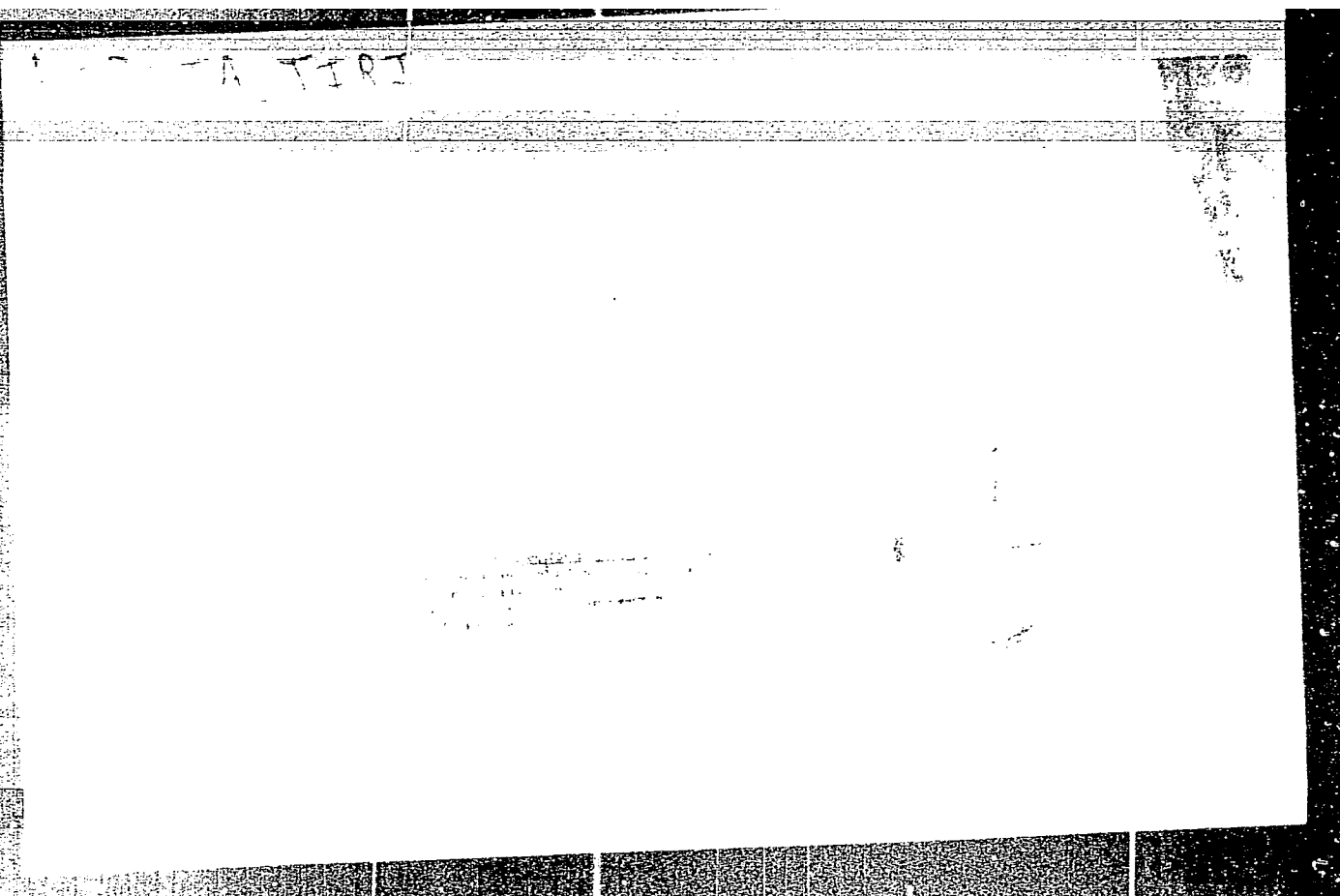
Effect of depolarizer regeneration by dismutation of polarographic currents. II  
Experimental studies of dismutation of the uranium (V) ion. In German. p. 430

Vol. 20, no. 2, Apr. 1955  
SBORNIK CHEKHOSLOVATSKIKH KHIMICHESKIKH RABOT  
Praha, Czechoslovakia

So: Eastern European Accession Vol. 5, No. 4, April 1956

"APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000825020001-3



APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000825020001-3"



KORYTA, J.

Czechoslovakia/Physical Chemistry - Electrochemistry, B-12

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61187

Author: Koryta, J.

Institution: ~~None~~

Title: Catalytic Electrode Reactions in Polarography. V. Catalytic Currents at Flowing Electrode

Original

Periodical: Katalysierte Elektrodenreaktionen in der Polarographie. V. Katalytische Stroeme an der Stromenden Elektrode. Sb. chekhosl. khim. rabot, 1955, 20, No 5, 1125-1130; German; Russian resumé

Abstract: See Referat Zhur - Khimiya, 1956, 15718

Card 1/1

KORUTA, JIRI

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# CZECH

Catalyzed electrode reactions in 0.1M NaOH. IV. The polarographic reduction of  $UO_2^{2+}$  by  $NO_2^-$  in the presence of  $UO_2^{2+}$  as a catalyst. The rate of the whole process is determined by the rate of the reaction  $UO_2^{2+} + NO_2^- \rightarrow UO_2^{+} + NO_3^-$ . The velocity constant of this bimol. reaction  $k_2 = 1.0 \times 10^6 \text{ mol}^{-1} \text{ sec}^{-1}$ , is detd. at a very low concn. of  $UO_2^{2+}$  as  $0.24$  from the equation  $i_l/i_d = 0.81 \sqrt{k_2[NO_2^-]t_d}$ , where  $i_l$  = limiting current,  $i_d$  = diffusion current of the reaction  $UO_2^{2+} \rightarrow UO_2^{+}$ ,  $t_d$  = drop time,  $k_2$  = velocity const. of the whole process. This equation holds for large catalytic currents. The high value of the velocity const. corresponds to a low activation energy of the process. The temperature of corresponding limiting current is low. These kinetic currents depend on the generally accepted mechanism of the reaction  $UO_2^{2+} + NO_2^- \rightarrow UO_2^{+} + NO_3^-$  hitherto supposed. The rate of the reaction  $UO_2^{2+} + NO_2^- \rightarrow UO_2^{+} + NO_3^-$  wave depends on the formation of  $UO_2^{+}$  and  $NO_3^-$  in the presence of  $UO_2^{2+}$  as a catalyst.

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KORTYA, J.

Catalyzed electrode reactions in polarography. V. Catalytic currents on the mercury jet electrode. p. 485.

CESKOSLO ENSKY HORNEK. Praha, C,echoslovakia. Vol. 49, no. 2, 1955.

Monthly List of East European Accessions (EEAI), IC, Vol 9, no. 1.  
Jan. 1960.

Uncl.

Czechoslovakia

KORYTA, J.

J. KORYTA, (Prague), author of "Kinetics of the deposition of cadmium from cyanide complexes on mercury dropping and jet electrodes," presented at the 4th ~~Electrochemical~~ Conference, Moscow, 1-6 Oct. 1956.  
Electrochemical

SOURCE: Program to the 4th International Conference on Electrochemistry, Moscow, 1-6 Oct. 1956, Unclassified.

KORYTA, J.

HUNGARY / Physical Chemistry. Electrochemistry.

B

Abs Jour: Ref Zhur-Khimiya, No 17, 1958, 56888.

Author : Koryta, J.

Inst : Not given.

Title : Polarography of Complex Compounds and Their  
Analytical Applications.

Orig Pub: Acta chim. acad. sci. Hung., 1956, 9, No 1 - 4,  
363 - 373.

Abstract: Summary. The effect of complex formation on  
polarographic metal waves were described. The  
possible mechanisms of a number of complexes  
were considered, polarographic methods for the  
determination of complex instability constants  
and their dissociation rates have been analyzed.  
The bibliography refers to 29 sources.

Card 1/1

KORYTA, J.

APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000825020001

A special case of the measurement of a deformation.

P. 233. (STAVBA.) (Bratislava, Czechoslovakia) Vol. 4, No. 8, Aug. 1957

SO: Monthly Index of East European Accession (EFAI) LC. Vol. 7, No. 5, 1958

KORYTA, J.

Electrochemical conference in Moscow.

P. 147 (Chemie, Vol 9, no. 1, April 1957, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 2  
February 1958

CZECHOSLOVAKIA / Physical Chemistry. Electrochemistry.

B-12

Abs Javv : Ref Zhur - Khim., No 10, 1958, No 31891

APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000825020001

Author : Jiri Koryta

Inst : -

Title : Polarographic Methods of Studying Mechanism of Metal  
Separation from Some Complexes.

Orig Pub : Chem. listy, 1957, 51, No 8, 1544 - 1546

Abstract : Relations permitting to determine the composition of  
electrochemically reduced particles were derived for the  
case of complex compounds, in the solutions of which the  
equilibrium is reached comparatively slowly. This compo-  
sition is determined by the dependence of the current at  
a constant potential on the concentration of the complex  
producer or on the concentration of  $H^+$  ions. If the in-  
tensity of the limiting current is determined by the disso-

Card 1/2

The first wave is the  
the initial at the electrode

By the way

Distr:  $\text{H}_2\text{O}/\text{H}_2\text{O}(1)$

Polarographic currents which are controlled by the dissociation of the cadmium complexes of nitrilotriacetic acid in acetate buffers. J. Koryta (Polarographic Inst., Prague). Z. physik. Chem. (Leipzig) Sonderheft July, 1958, 157-64; cf. C.A. 45, 491c, 1956. Study of the polarography of the  $\text{Cd}^{++}$  complexes of nitrilotriacetic acid (I) in acetate buffers developed the following facts: (1) The dependence of the currents on concn.,  $C_s$ , in the presence of an excess of I is given by  $C_s^{1/2} \sim i_s/(i_s - i_k)$ , where  $i_s$  is the kinetic limiting current and  $i_k$  is the total diffusion current. (2) The pH dependence of  $\log i_s/(i_s - i_k)$  at const. concn. of I and acetate is linear with a slope of unity for  $\text{pH} < 4.5$ , but the slope decreases as pH exceeds 4.5. (3) The kinetic wave increases with increasing buffer concn. at const. pH and ionic strength. Math. analysis indicates that the exptl. results agree well with theory (C.A. 52, 13482g). H. K. Zimmerman

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*[Handwritten initials]*



CZECHOSLOVAKIA / Physical Chemistry. Electrochemistry. B-12

Abs Jour: Ref Zhur-Khimiya, No 7, 1959, 22682.

Author : Koryta, J.

Inst : Not given.

Title : Kinetics of Electrode Processes in Polarography with Participation of Complexes. I. Concerning Some Polarographic Methods of Determination of Mechanism of Precipitation of Metals from Complexes.

Orig Pub: Collect. czechosl. chem. commun., 1958, 23, No 7, 1408-1411.

Abstract: See RZhKhim, 1958, 31891.

Card 1/1

CZECHOSLOVAKIA / Physical Chemistry. Electrochemistry. B-12

Abs Jour: Ref Zhur-Khimiya, No 23, 1958, 76830.

Author : Cizek, J., Koryta, J., and Koutecky, J.

Inst : Not given.

Title : The Polarographic Current Determined by the Dissociation of an Electrically Neutral Compound with the Formation of an Electrically Active and an Electrically Neutral Substance.

Orig Pub: Chem Listy, 52, No 2, 201-213 (1958) (in Czech).

Abstract: The value of the instantaneous current  $i$  and of the limiting diffusion current  $i_d$  have been calculated for the case when the complex alone is present in solution, which contains no complexing agent. The decomposition /dissociation/ of the complex (B) yields an electrically neutral complexing agent (C) and an electrically active

Card 1/2

*KORYTA J.* B

COUNTRY : CZECHOSLOVAKIA  
 CATEGORY : Physical Chemistry. Electrochemistry

ABS. JOUR. : RZKhim., No. 1 1960, No. 617

AUTHOR : Koryta, J.  
 INST. :  
 TITLE : Kinetics of Electrode Processes with Participation of Complexes in Polarography. II. Determination of Stability Constants from Potentials\*

ORIG. PUB. : Chem. listy, 1958, 52, No 12, 2253-2266

ABSTRACT : An equation for the dependence between the shift  $E_2$  and stability constants,  $K$ , of complexes for kinetic currents which are limited by the rate of chemical reaction and correspond to the reversible electrode process, is proposed. The application of this equation has been examined on the example of the complex of Cd (+2) with

\*of Half-Waves of Kinetic Currents

CARD:

1/6

B-39

B

COUNTRY :  
 CATEGORY :  
 ABS. JOUR. : RZKhim., No. 1 1960, No. 617

AUTHOR :  
 INST. :  
 TITLE :

ORIG. PUB. :

ABSTRACT : nitrilotriacetic acid (I). In acetate buffer solutions, Cd (+2) in the presence of I gives two polarographic waves. The more positive wave is reversible and corresponds to the discharge of the free hydrated ion  $Cd^{+2}$  or to the reduction of the acetate complexes of Cd (+2), which are in equilibrium with the hydrated ions  $Cd^{+2}$ . The more negative wave corresponds to the direct reduction of the complex of Cd (+2) with I.

cont'd

CARD:

2/6

B

KORYTA I. *revised*

PHASE I BOOK EXPLOITATION SOV/2216

5(4)

Sveshchaniye po elektrokimii. 4th, Moscow, 1956.

Trudy... [abornik] (Transactions of the Fourth Conference on Electrochemistry; Collection of Articles) Moscow, Izd-vo AN SSSR, 1959. 868 p. Errata slip inserted. 2,500 copies printed. Sponsoring Agency: Akademiya nauk SSSR. Otdeleniye khimicheskikh nauk.

Editorial Board: A.M. Prumkin (Resp. Ed.), Academician, O.A. Yezin, Professor, S.I. Zhdanov (Resp. Secretary), B.M. Kabanov, Professor, Ya. M. Kolotyrkin, Doctor of Chemical Sciences, V.V. Losav, P.D. Lukovtsev, Professor, Z.A. Solov'yev, V.V. Stender, Professor, and O.M. Florianovich; Ed. of Publishing House: N.G. Yegorov; Tech. Ed.: T.A. Prusakova.

PURPOSE: This book is intended for chemical and electrical engineers, physicists, metallurgists and researchers interested in various aspects of electrochemistry.

COVERAGE: The book contains 127 of the 138 reports presented at the Fourth Conference on Electrochemistry sponsored by the Department of Chemical Sciences and the Institute of Physical Chemistry, Academy of Sciences, USSR. The collection pertains to different branches of electrochemical kinetics, double layer theories and galvanic processes in metal electrodeposition and industrial electrolysis. The abridged discussions are given at the end of each division. The material is not included here. References are mentioned. References are given at the end of most of the articles.

Koutetskiy, Ya. Institute of Physical Chemistry, Czechoslovakian Academy of Sciences). Survey of the Latest Theoretical Work at the Prague Polarographic School 143

Nikol'yeva-Pedrovich, M.V., and B.B. Danasikin (Moscow State University). Influence of the Radius of "Background" Electrode on the Reduction of Persulfate Anions at a Mercury Electrode 150

Mintz, Stefan. Institute of Physical Chemistry, Polish Academy of Sciences). The Influence of Structural Changes in  $H_2O_3$  Molecules on the Course of Cathodic Polarization of a Platinum Electrode in Nitric Acid Solutions 159

Zhdanov, S.I., V.I. Zykov, and T.V. Kalish (Institute of Card 7/34

Electrochemistry and Physics, Praden School for Advanced Technology). The Influence of Organic Solvents on Nave Height and Semistable Potential of Organic Dopolarizers 170

Zabotin, P.I., S.P. Bukhman, and G.Z. Kir'yakov (Institut Khimii Akademi nauk KazSSR-Institute of Chemistry, Academy of Sciences, Kazakh SSR). Influence of the Position of Zero-Charge Points on the Reduction of Indium at a Mercury-Drop Electrode 179

Koryta, I. Polarographic Institute, Czechoslovakian Academy of Sciences). Kinetics of the Separation of Cadmium from Cyanide Complexes at a Dropping Mercury Electrode and Streaming Mercury Electrodes 186

Shegolev, Sh.-S. (Tsentrallyaya laboratoriya "Zavodstroya" Dzerzhinsk-Central Laboratory "Zavodstroya", Dzerzhinsk). Reduction of a Chlorite Ion at a Dropping Mercury Cathode 193

Card 8/34

I. KORYTA, J.

✓ Polarographic methods of investigation of the kinetics of metal deposition from complex compounds. I. Koryta (Acad. Sci., Prague). *Electrochim. Acta* 1, 29-31 (1956). An analysis of the over-all process of deposition of a metal from a complex at the dropping Hg electrode is made. The steps considered were: diffusion, dissociation, and formation of the complex, the electrode reaction, and deactivation of the reaction product. The analysis required the following data: dependence of the mean polarographic current on electrode potential, on concn. of the complexing agent, and on drop time; dependence of the half-wave potential on the last 2 factors; dependence of the instantaneous current on time. P. Van R.

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AUTHOR:  
TITLE:

Jiří Koryta

On Rates of Equilibrium Formation Between a Complex and its Components

PERIODICAL:  
ABSTRACT:

Chemické listy, 1959, Nr 12, pp 1233-1238.  
Presented on July 2, 1959 at a conference on inorganic chemistry in Bratislava

The author points to the marked interest in recent years of fast chemical reactions (Ref 1,2). These reactions are mainly those where the velocity of the overall chemical change occurs very quickly - "instantaneous" - with very small activation energies. These reactions in solution are predominantly ionic. Even processes which are "normal", ie occurring with low velocities, fast reactions often play an important role in relation to intermediates. Conclusion on the reactions forming, and bringing about the dissociation, of complex throw some light on the two processes formulated above. The simplest case is that of tris  $\alpha, \alpha'$ -dipyridyl complex with divalent iron (cf Ref 3,4) and also a similar complex of o-phenanthroline (cf Ref 5). The dipyridyl reaction is then considered in more detail (p 1233) in relation to the

Card 1/3

66906

CZECH/8-59-12-1/15

On Rates of Equilibrium Formation Between a Complex and its Components

kinetics of the complex formation.<sup>7</sup> Another way, which is basically analogous approach to research on the reaction involving complex formation, is the study of the velocity of the binding of one cation in a complex with a second cation. An effective polarographic method for the determination of the complexing constant is based on the measurement of the equilibrium state (Ref 6 to 9) and has been used specifically for the complexone type complexing agents (Ref 8) - see Eq (1). Fast (Ref 10,11), medium (Ref 8,9) and slow (Ref 8,9) reactions have been discovered. Eq (2a) to (2c) and Eq (3a) and (3b) are used to explain the more complex velocity equations given earlier on p 1234.  $\text{Cu}^{2+}$  and  $\text{Pb}^{2+}$  reactions are mentioned. Bjerrum et al (Ref 12) evaluated the velocities of established consecutive complex equilibria. The velocities of reactions not possessing zero activation energies fall with falling temperature. Table I gives values of velocity constants and activation energies in relation to complexes of nickelous and cupric ions with ethylenediamine. It is clear that the reaction velocity increases with the number of ligands. The problem of certain complexes giving several curves (Ref 13 to 16).

Card 2/3

COUNTRY : Czechoslovakia B-12  
 CATEGORY :  
 ABS. JOUR. : RZhKhim., No. 1959, No. 85502  
 AUTHOR : Cizek, J.; Koryta, J.; Koutecky, J.  
 INST. :  
 TITLE : Polarographic Current Resulting from  
 Dissociation of an Electroinactive Compound  
 into an Electroactive and an Electroinactive\*  
 ORIG. PUB. : Collect. Czechosl. Chem. Commun., 1959, 24,  
 No 3, 663-677  
 ABSTRACT : See RZhKhim, 1958, No 23, 76830.

CARD:

\* Substance.

31

APPROVED FOR RELEASE: 06/14/2000  
 KORYTA, J.

CIA-RDP86-00513R000825020001-

Kinetics of electrode processes of complexes in polarography. II.  
 Determination of complexity constants from halfwave potentials of  
 kinetic currents. In German. Coll.Cz.Chem. 24 no.9:2903-2918 S '59.

1. Polarographisches Institut, Tschechoslowakische Akademie der  
 Wissenschaften, Prag.  
 (Electrodes) (Polarograph and polarography)  
 (Complex compounds)

KORYTA, J.

Kinetics of electrode processes of complexes in polarography. III.  
Polarographic currents and dissociation reaction in complexes. In  
German. Coll. Cz. Chem. 24 no.9:3057-3074 S '59. (KRAI 9:5)

1. Polarographisches Institut, Tschechoslowakische Akademie der  
Wissenschaften, Prag.  
(Electrodes) (Polarograph and polarography) (Dissociation)  
(Complex compounds)



CIZEK, J.; KORYTA, J.; KOUTECHY, J.

Polarographic currents which are determined by the velocity of the formation of an electroactive substance from two electroinactive substances, none of which is in excess. Coll Cz chem 25 no.12:3844-3860 '59. (EEAI 9:6)

1. Institut für physikalische Chemie, Tschechoslovakische Akademie der Wissenschaften, Prag.  
(Polarograph and polarography)

KORYTA, J.

Academician Jaroslav Heyrovsky, the first Czechoslovak Nobel Prize winner. p. 563.

ELEKTROTECHNICKY OBZOR. (Ministerstvo tezkého strojírenství a Československé vědecká technická společnost pro elektrotechniku při Československé akademii věd) Praha, Czechoslovakia. Vol. 48, no. 11, Nov. 1959.

Monthly list of East European Accessions (EEAI) LC, vol. 9, no. 1, Jan. 1960.

Uncl.

KORYTA, J

"J. Kubes's Galvanicke clanky a akumulatory (Galvanic Batteries and Accumulators);  
a book review"

Chemicke Listy. Praha, Czechoslovakia. Vol. 53, no. 1, Jan 1959

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 1959, Unclass

KORYTA, J.

PHASE I BOOK EXPLOITATION

SOV/4784

Pribil, Rudolf, Doctor of Chemical Sciences, State Prize Winner, and Jiří Koryta, Doctor

Kompleksy v khimicheskom analize (Complexons In Chemical Analysis) 2d ed., rev. and enl. . . . Moscow, Izd-vo inostr. lit-ry, 1960. 580 p. No. of copies printed not given. [Translated from the Czech]

Translator: Yu. I. Vaynshteyn, Candidate of Technical Sciences

Ed. (Title page): Yu. Yu. Lur'ye, Doctor of Chemical Sciences; Ed. (Inside book): V. A. Zakhar'yevskiy; Tech. Ed.: S. V. Pridantseva.

**PURPOSE:** This book is intended for chemists and analysts in research institutes and plant laboratories.

**COVERAGE:** The book discusses the theory and practice of the application of complexons in analytical chemistry, and deals in detail with the theory of complexons, the structure of forming complexes, as well as methods for determining the stability constants of these complexes. The author describes in

Card 1/41

BIERNAT, J.; KORYTA, J.

Kinetics of electrode processes of complex compounds in polarography.  
VI. Separation of a complex with nitrilotriacetic acid. Coll Cz Chem  
25 no.1:38-46 Ja '60. (EEAI 9:12)

1. Institut für anorganische Chemie, Universität Wrocław, Polen  
(for Biernat). 2. Polarographisches Institut, Tschechoslovakische  
Akademie der Wissenschaften, Prag. (for Koryta)

(Electrodes)  
(Polarograph and polarography)  
(Manganese)  
(Nitrilotriacetic acid)  
(Complex compounds)

KORYTA, J.; ZABRANSKY, Z.

Kinetics of electrode processes of complexes in polarography. VII.  
Formation of the complex of cadmium ion with the ethylenediamino-  
tetraacetic acid as a reaction deactivating the product of rapid  
electrode reaction. Coll Cs Chem 25 no.12:3153-3158 D '60.  
(EEAI 10:9)

1. Polarographic Institute and Institute of Metallurgy, Czechoslovak  
Academy of Science, Prague.

(Electrodes) (Ions) (Polarograph and polarography)  
(Cadmium) (Ethylenedinitrilotetraacetic acid)

Z/008/60/054/012/002/004  
E073/E335

AUTHOR: Koryta, Jiří

TITLE: Polarography as a Method of Studying the Kinetics of  
Electrode Processes

PERIODICAL: Chemické listy, 1960, Vol. 54, No. 12,  
pp. 1228 - 1236

TEXT: This paper was written to commemorate the seventieth birthday of Academician J. Heyrovský. The author gives a very general review on the subject. The kinetics of the electrode process was studied polarographically on the basis of the dependence of the instantaneous current intensity on time and on the basis of the dependence of the current intensity on the potential. The absolute value of the diffusion limiting current is important since it enables determining or evaluating the number of elementary charges consumed in the electrode reaction. Further criteria are the dependence of the current intensity in the case of a constant potential or a constant current intensity on the composition of the solution and the

Card 1/2

KORYTA, Jiri

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